



STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
300 W. Preston Street, Suite 202, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

Office of Preparedness & Response
Sherry Adams, R.N., C.P.M, Director
Isaac P. Ajit, M.D., M.P.H., Deputy Director

March 9, 2012

Public Health & Emergency Preparedness Bulletin: # 2012:09 Reporting for the week ending 03/03/12 (MMWR Week #09)

CURRENT HOMELAND SECURITY THREAT LEVELS

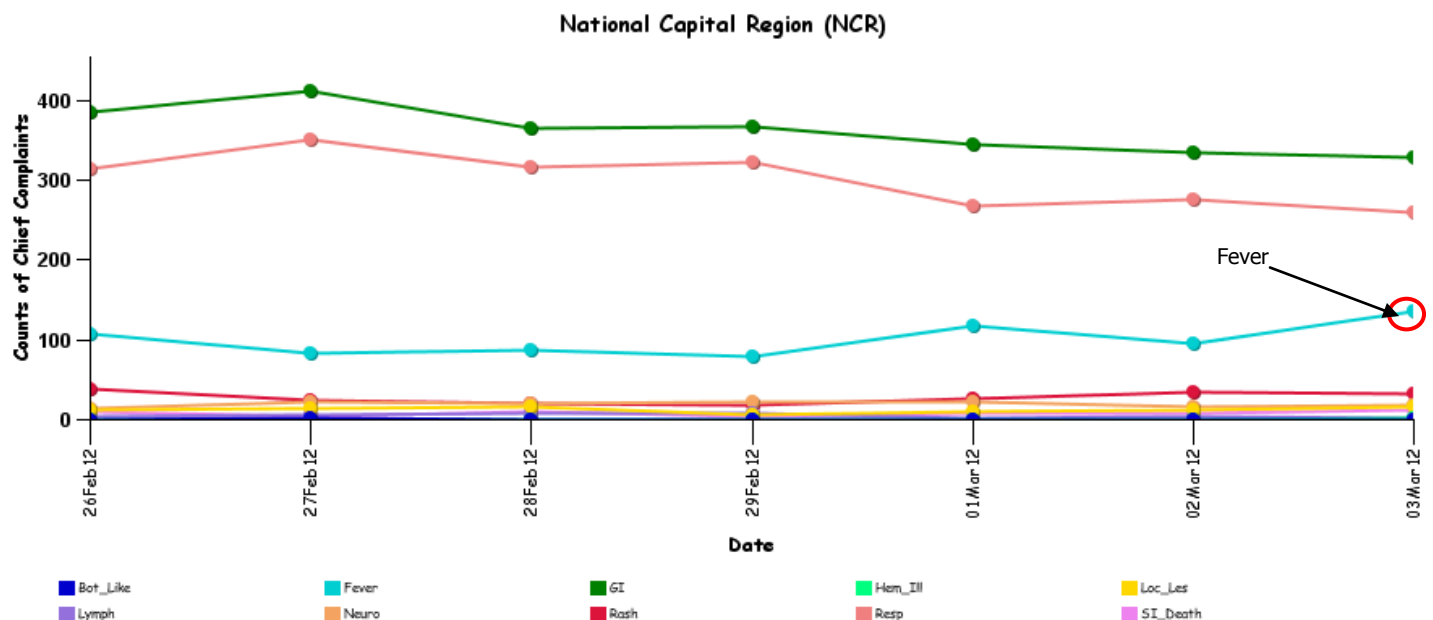
National: No Active Alerts
Maryland: Level One (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):

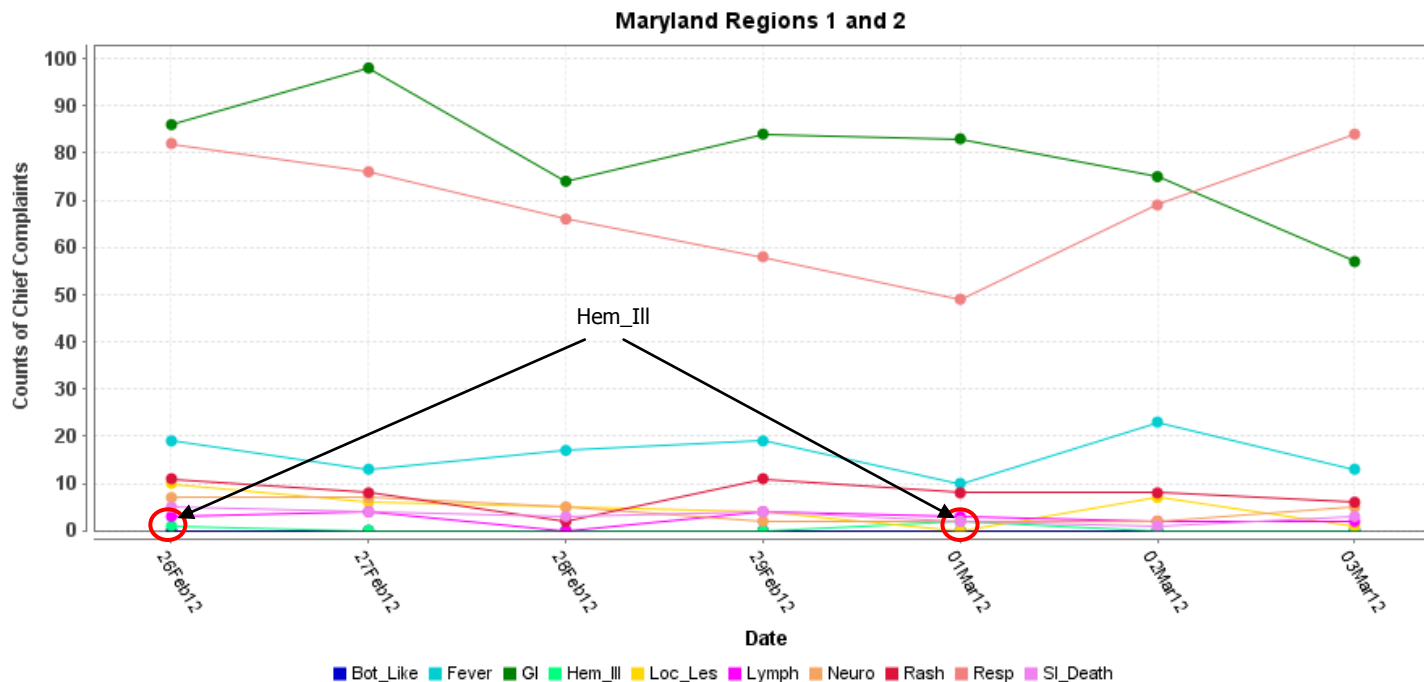
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

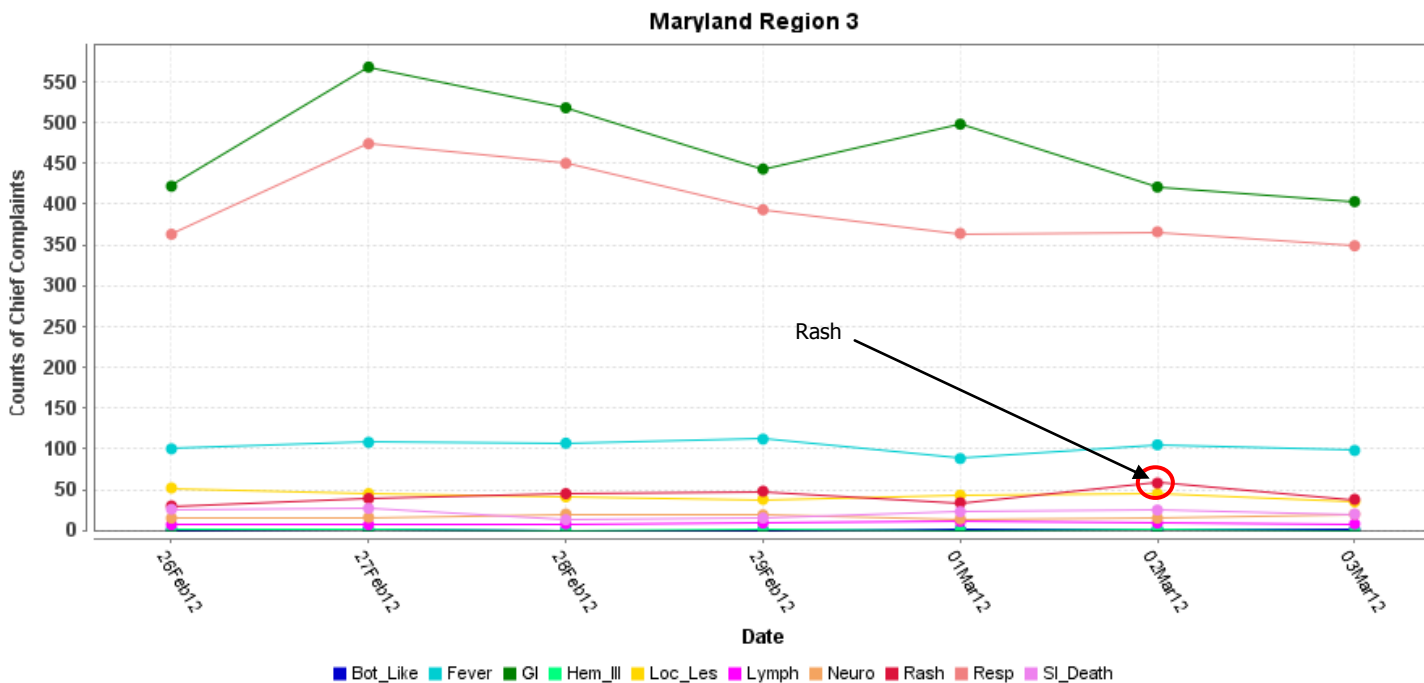


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

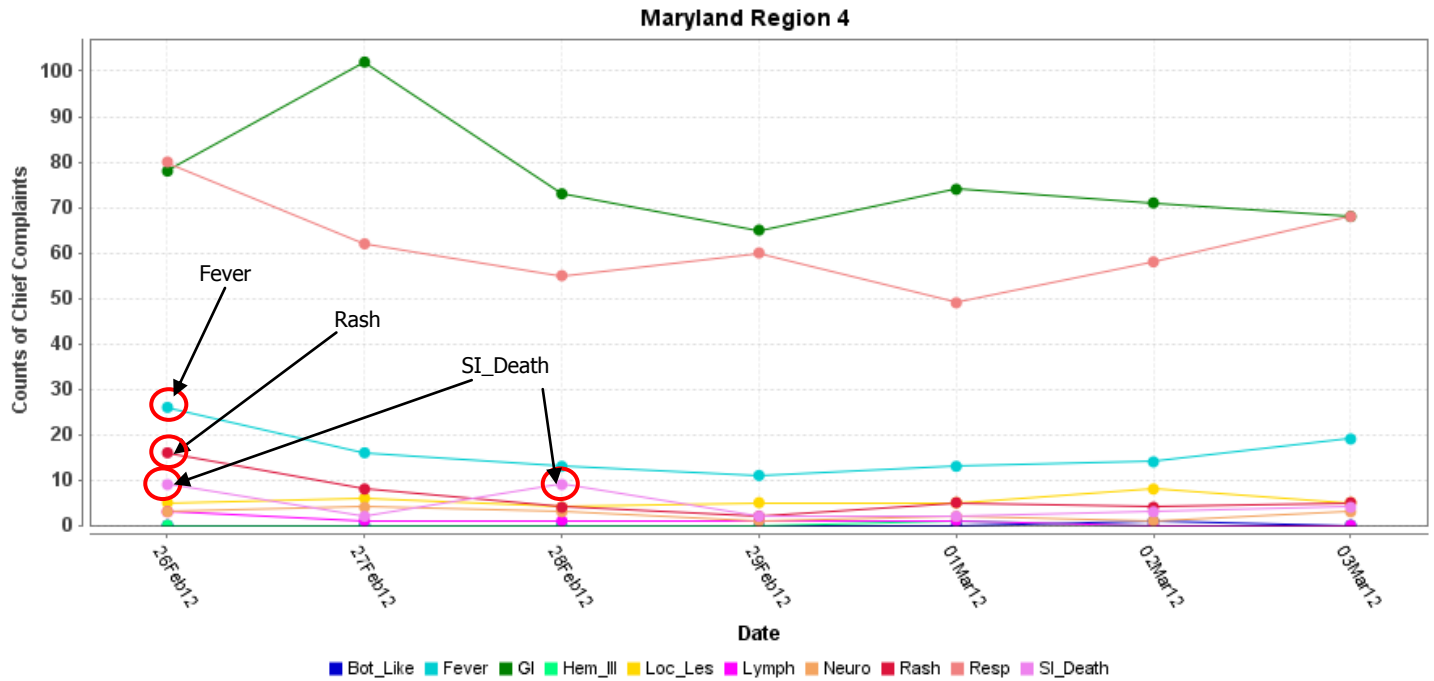
MARYLAND ESSENCE:



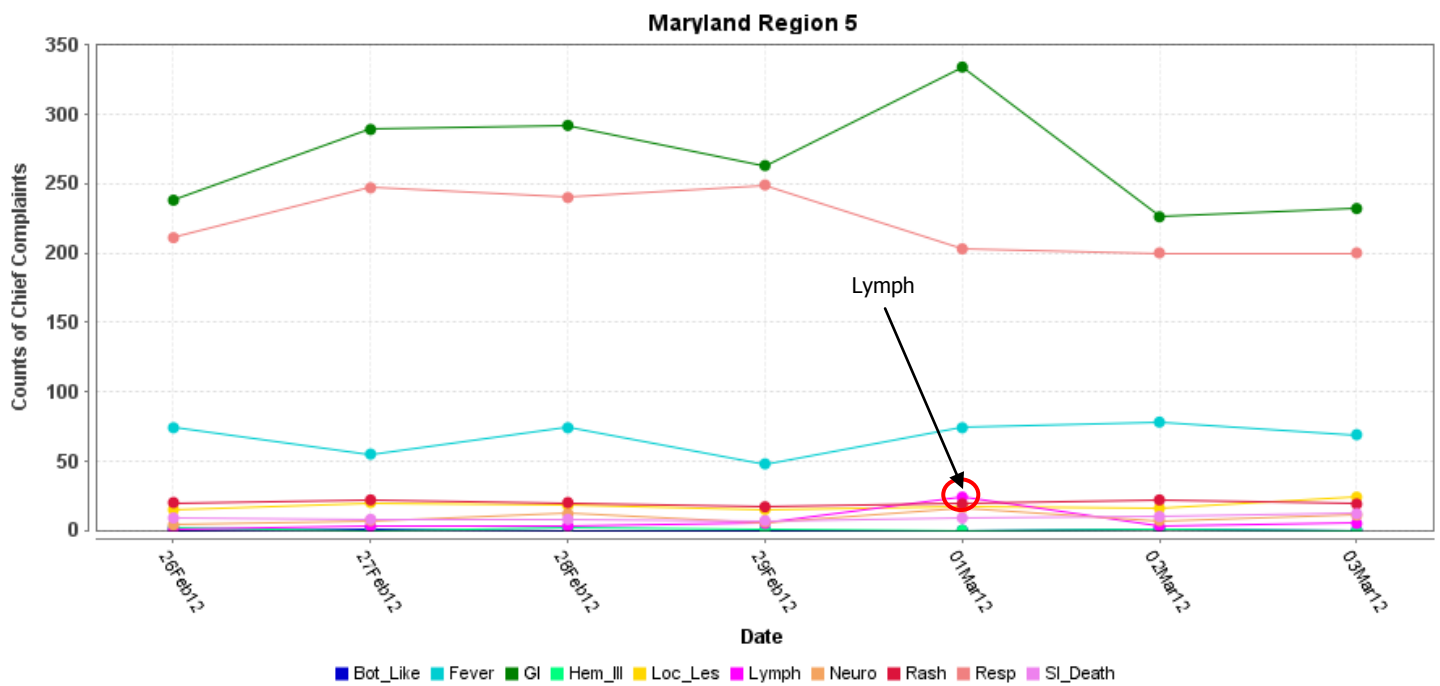
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

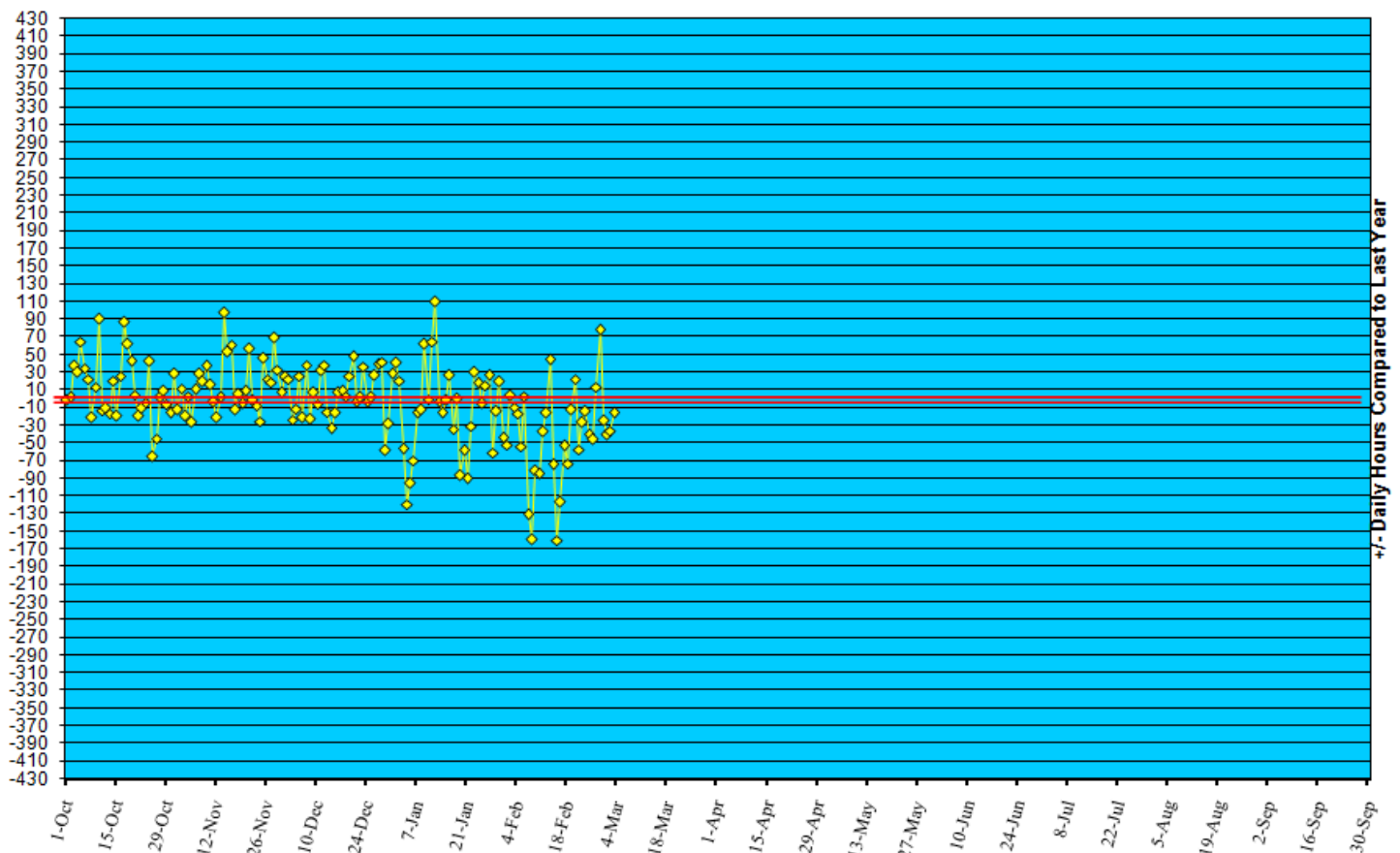


* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.

Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '11 to March 3, '12



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in January 2012 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:

New cases (February 26 – March 3, 2012):

Prior week (February 19 – February 25, 2012):

Week#9, 2011 (February 27 – March 5, 2011):

Aseptic

14

5

10

Meningococcal

0

0

0

19 outbreaks were reported to DHMH during MMWR Week 9 (February 26 – March 3, 2012)

17 Gastroenteritis outbreaks

- 7 outbreaks of GASTROENTERITIS in Nursing Homes
- 6 outbreaks of GASTROENTERITIS in Assisted Living Facilities
- 3 outbreaks of GASTROENTERITIS in Schools
- 1 outbreak of GASTROENTERITIS associated with an Adult Daycare Center

2 Foodborne outbreaks

- 1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Banquet Hall
- 1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Restaurant

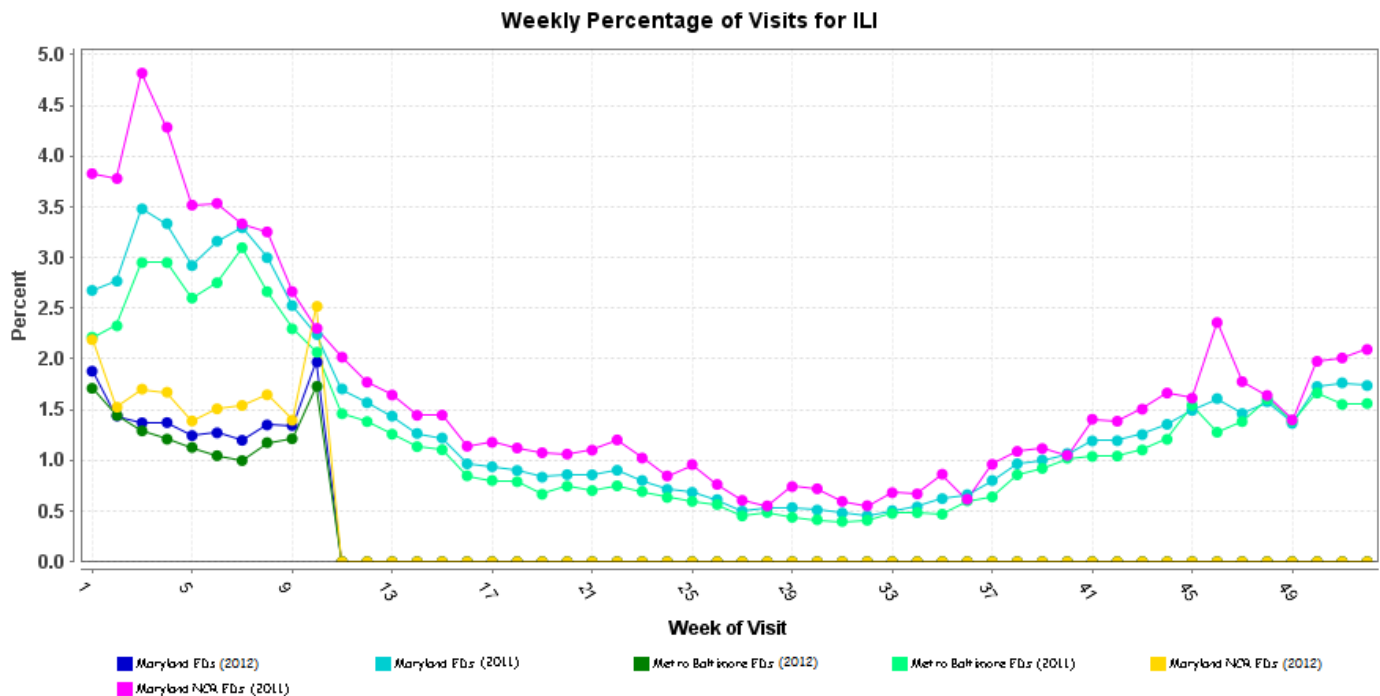
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 9 was: Sporadic Activity, Minimal Intensity.

SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

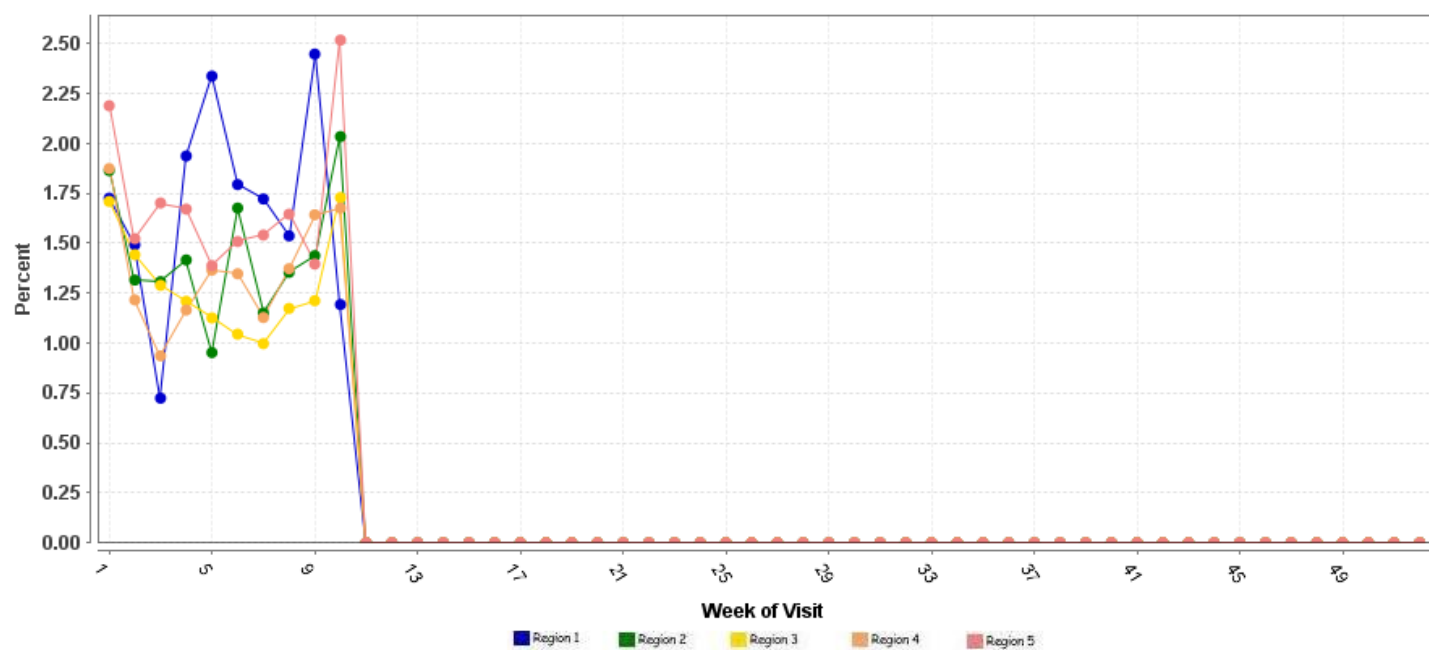
Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



* Includes 2011 and 2012 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total

Weekly Percentage of Visits for ILI

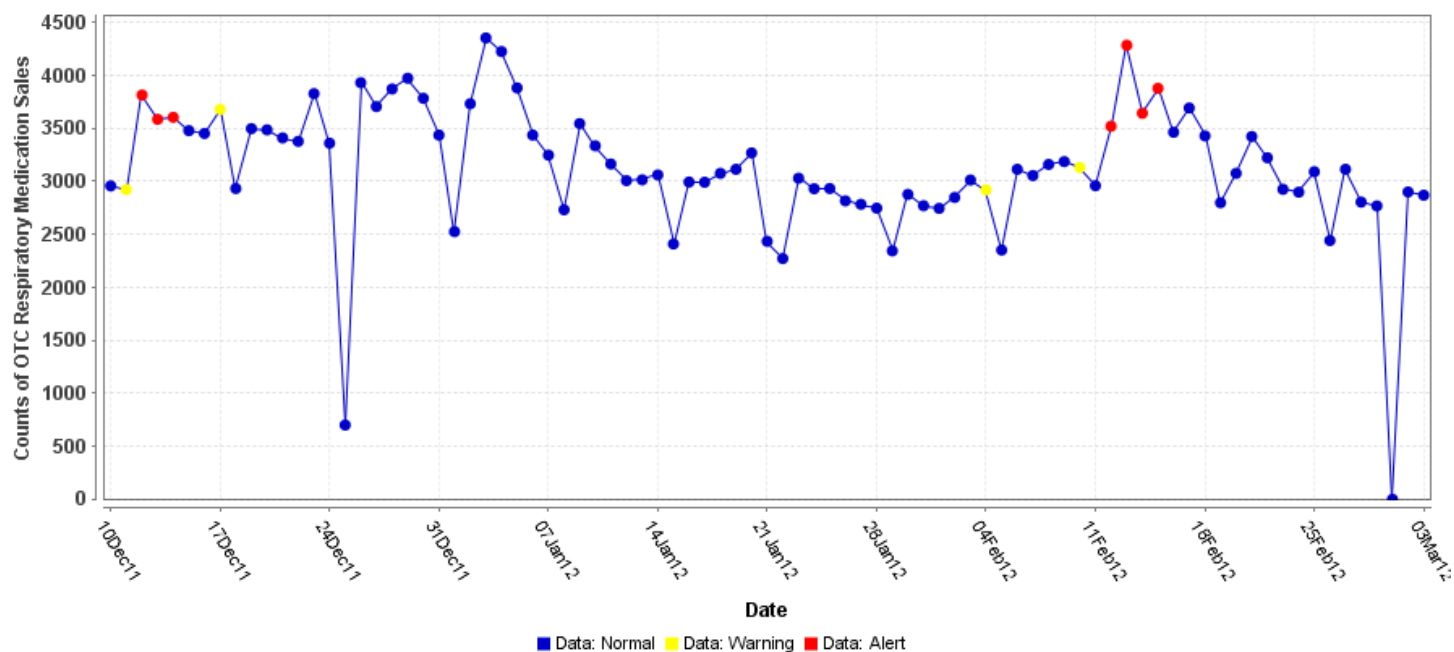


*Includes 2012 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

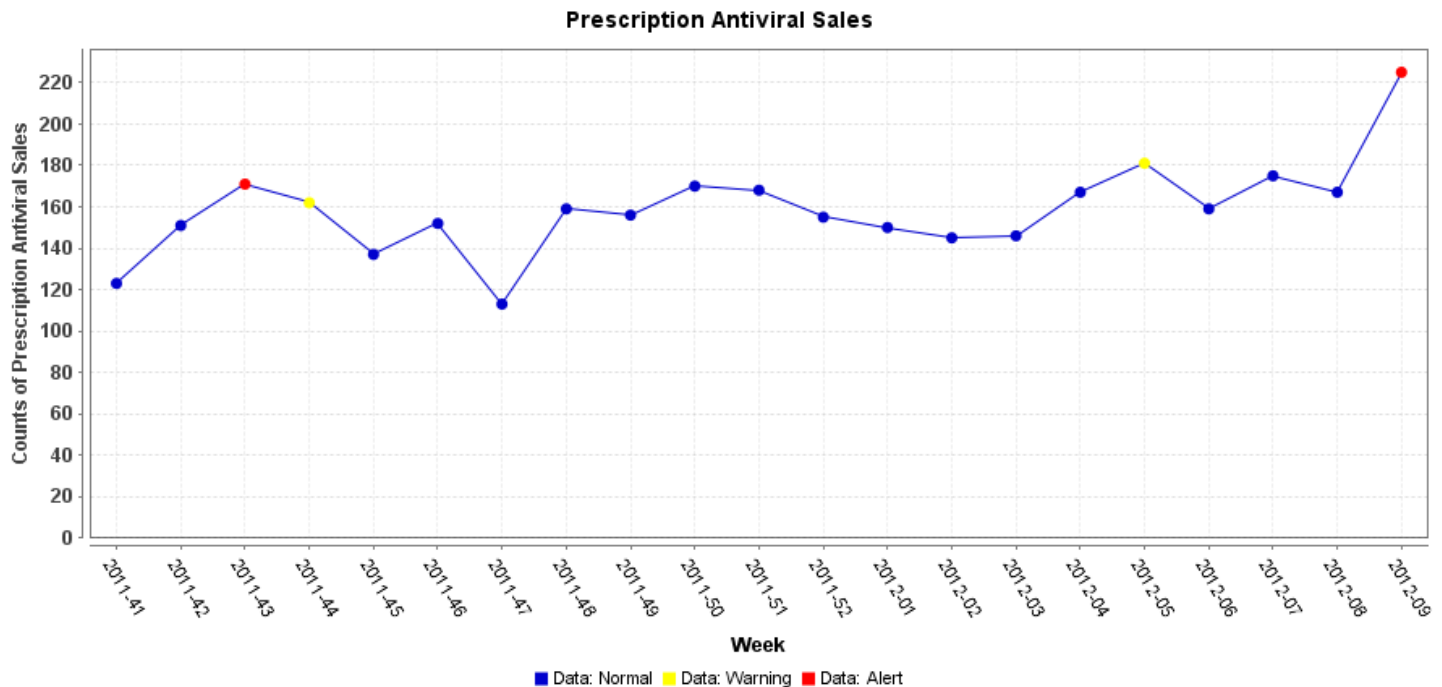
Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.

OTC Respiratory Medication Sales



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of March 2, 2012, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 591, of which 349 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA, HUMAN (BANGLADESH): 3 March 2012, As of 2 Mar 2012 the Ministry of Health and Family Welfare, Bangladesh, has confirmed the fourth case of human infection with H5N1 avian influenza in that country. The case is a 40 year-old male from Dhaka City, who was identified as part of the live bird market surveillance system on 26 Feb 2012. The case presented with cough and currently has recovered. The case was confirmed by the Institute of Epidemiology, Disease Control and Research (IEDCR) and the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). An epidemiological investigation and monitoring of the situation is currently being conducted jointly by IEDCR and ICDDR,B. The first case of human infection with H5N1 was reported in the country in 2008, and two cases were reported in 2011.

AVIAN INFLUENZA, HUMAN (INDONESIA): 2 March 2012, As of 1 Mar 2012 the IHR [International Health Regulations] National Focal Point in Indonesia has notified WHO of one new case of human infection with avian influenza A (H5N1) virus. The case was a 12-year-old male from Badung, Bali. He had onset of symptoms on 11 Feb 2012 and was admitted to a private clinic on 16 Feb 2012. His condition continued to worsen, resulting in severe difficulty breathing. He was referred to an avian influenza referral hospital on 20 Feb 2012 where he died on 21 Feb 2012. Epidemiological investigation into the source of infection indicated contact with poultry, though no poultry deaths within the household or neighborhood have been reported. The risk factors are still under investigation. Of the 186 cases confirmed since 2005 in Indonesia, 154 have been fatal.

AVIAN INFLUENZA, HUMAN (EGYPT): 29 February 2012, As of 28 Feb 2012, the Ministry of Health and Population of Egypt has notified WHO of 2 new cases of human infection with avian influenza A (H5N1) virus. The 1st case is a 32-year-old male from Behira governorate, in the Abo Elmatameer district. He developed symptoms on 16 Feb 2012 and was admitted to hospital on 21 Feb 2012 where he received oseltamivir treatment upon admission. He died on 28 Feb 2012. The 2nd case was a 37-year-old female from Kafr Elshikh governorate in the Kelleen district. She developed symptoms on 18 Feb 2012 and was admitted to hospital on 23 Feb 2012 where she received oseltamivir treatment upon admission. She died on 26 Feb 2012. Preliminary

investigations into both cases with regard to the source of infection indicate close contact with sick or deceased backyard poultry at the cases' respective residences. Both cases were confirmed by the Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network. Of the 163 cases confirmed to date in Egypt, 57 have been fatal.

AVIAN INFLUENZA, HUMAN (VIET NAM): 28 February 2012, A man suffering from bird flu [avian A/(H5N1) influenza virus infection] is in critical condition in southern Viet Nam, health officials said on Tuesday [28 Feb 2012]. The 22-year-old from Binh Duong province is the 4th person to contract the virus this year, sparking fears that the deadly avian virus could be returning in force. The man caught the virus reportedly after eating a meal that contained duck blood. So far, 2 others in the area have already died as a result of the virus as health authorities continue to scramble to contain the virus in South Viet Nam. The victim was 1st taken to hospital on 17 Feb 2012 with a high fever and respiratory failure. Tests showed he had contracted the H5N1 strain of the virus. He is thought to have caught the virus from a meal of duck blood pudding, a kind of noodle soup that is served with pieces of congealed blood. On Sunday [26 Feb 2012], the Animal Health Department raided shops in the patient's hometown illegally trading in live poultry and slaughtering birds, the newspaper Viet Nam News reported. The area around his home was also disinfected. The department has prepared 1.2 million doses of vaccine against the virus which it will start using on Thursday [01 Mar 2012]. There have been 121 confirmed human H5N1 infections and 61 deaths in Viet Nam since the virus 1st appeared in the country in 2003. The virus can be passed to humans who come in contact with uncooked poultry or poultry feces.

NATIONAL DISEASE REPORTS

CAMPYLOBACTERIOSIS (USA): 1 March 2012, Since Food Safety News last reported on 24 Feb 2012, the Pennsylvania Department of Health has confirmed an additional 2 cases of campylobacteriosis in an outbreak tied to contaminated unpasteurized milk from Your Family Cow dairy in Chambersburg, PA. The latest cases bring the outbreak toll to 80 confirmed illnesses. The 2 new confirmations, both from Pennsylvania, do not have a recent onset, as the emergence of new cases appears to have slowed. This is the largest foodborne illness linked to raw milk in Pennsylvania history, affecting individuals in 4 states. The breakdown of cases by state is as follows: Pennsylvania (70 illnesses), Maryland (5), West Virginia (3), New Jersey (2). Illness onset dates for the current outbreak range from 17 Jan 2012 to 1 Feb 2012. At least 9 people have been hospitalized. Since 2007, Pennsylvania raw milk dairies have been linked to at least 7 outbreaks, now resulting in a total of 287 illnesses. In 2008, the state had a raw milk outbreak of campylobacteriosis that sickened 72 people. Although the Your Family Cow dairy temporarily halted sales upon discovery of the outbreak, the farm was allowed to resume production on 6 Feb 2012, after passing a health inspection. Of the 80 confirmed cases, 25 (31 percent) are under the age of 18, while all those ill ranged in age from 2 to 74. Children, the elderly, and those with compromised immune systems are most susceptible to illness from pathogenic bacteria. A spokesperson for the Pennsylvania state department of health emphasized that the 2 latest confirmed cases occurred within the established illness onset range, suggesting that the outbreak ended weeks ago. Regardless, more cases may continue to surface as health laboratories match illnesses to the outbreak. The sale of raw milk is legal in Pennsylvania. Last week, the CDC released a study showing that states that permit raw milk sales have more than twice as many illness outbreaks as states where raw milk is not sold. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI EHEC (USA): 28 February 2012, A total of 14 individuals infected with the outbreak strain of E. coli O26 have been reported from 6 states. The 2 new cases have been reported from Michigan. Both new cases reported eating at Jimmy John's restaurants and consuming sprouts in the 7 days preceding illness. Among the 14 persons for whom information is available, illnesses onset dates range from 25 Dec 2011 to 7 Feb 2012. Ill persons range in age from 9 years to 49 years old, with a median age of 25 years old. All of ill persons are female. Among the 14 ill persons, 2 (14 percent) were hospitalized. None have developed HUS [hemolytic uremic syndrome], and no deaths have been reported. Illnesses that occurred after 4 Feb 2012, might not be reported yet due to the time it takes between when a person becomes ill and when the illness is reported. The type of bacteria responsible for this outbreak are referred to as STEC [Shiga toxin-producing] or EHEC [enterohemorrhagic E. coli]. EHEC bacteria are grouped by serogroups (such as, O157 or O26). The EHEC serogroup found most commonly in American patients is E. coli O157. Other E. coli serogroups in the EHEC group, including O26, are sometimes called "non-O157 EHECs." Some types of EHEC frequently cause severe disease, including bloody diarrhea and hemolytic uremic syndrome (HUS). Others, such as common strains of EHEC O26, typically cause milder illness. Currently, there are limited public health surveillance data on the occurrence of non-O157 EHECs, including EHEC O26; therefore, EHEC O26 infections may go undiagnosed or unreported. Because non-O157 EHEC infections are more difficult to identify than EHEC O157, many clinical laboratories do not test for them. The EHEC O26 PFGE [pulsed field gel electrophoresis] pattern in this outbreak has rarely been seen before in PulseNet. Based on previous outbreaks associated with sprouts, investigation findings have demonstrated that sprout seeds might become contaminated in several ways. They could be grown with contaminated water or improperly composted manure fertilizer. They could be contaminated with feces from domestic or wild animals, or with runoff from animal production facilities, or by improperly cleaned growing or processing equipment. Seeds also might become contaminated during harvesting, distribution, or storage. Many clover seeds are produced for agricultural use, so they might not be processed, handled, and stored as human food would. Conditions suitable for sprouting the seed also permit bacteria that might be present on seeds to grow and multiply rapidly. In 1999, the US FDA released guidance to help seed producers and sprout growers enhance the safety of their products. Specific measures recommended in the guidelines include a seed disinfection step and microbiologic tests of water that has been used to grow each lot of sprouts. The microbiologic tests currently recommended under this guidance would not identify the presence of EHEC O26. Preliminary results indicate that this strain of E. coli produces Shiga toxin type 1 and does not produce Shiga toxin type 2. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

HEPATITIS A (NEW ZEALAND): 2 March 2012, Auckland is facing a hepatitis A outbreak with 19 cases confirmed, including some schoolchildren. Auckland Regional Public Health Service spokesman Dr. Shanika Perera says a "large team" is working with the patients and affected schools. "At this time it is unknown how the disease was initially contracted. We are currently working with the cases to determine the source of the disease and prevent further spread." As of 9 am today [2 Mar 2012], 19 people were infected. Hepatitis A is usually a mild illness in children with complete recovery and no ongoing health effects, but it affects teenagers and adults more seriously. Hepatitis A virus is excreted through feces and can be spread from person to person or by swallowing food or water that has been contaminated. Symptoms in children usually include fever, an upset stomach, and feeling tired and generally unwell, Perera says. Many children don't show signs of the infection, but very occasionally they will develop jaundice -- a yellowing of the skin and the whites of the eyes. "If a parent is concerned that their child may have been exposed to hepatitis A infection and they are unwell, we ask that

they stay away from school, childcare centers, and social events and contact their doctor. Perera says more information would be made available to affected schools and families. The best way to prevent the spread of the infection is careful hand washing with soap and proper drying, especially after using the toilet and before eating. "Hepatitis A is an uncommon disease in New Zealand but to keep it that way we need to contain the spread, regular hand washing with soap and warm water then drying thoroughly is the simplest way to prevent spread," Perera said. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI EHEC (GERMANY): 29 February 2012, After the death of a 6-year-old girl in Hamburg, new EHEC cases are reported from Germany. Earlier this week, 2 children, a brother (11 years old) and sister (3 years old), were found to be positive. The boy went to a school next to the school of the diseased girl. The school is closed for 2 days because of disinfection. Today, 29 Feb 2012, lab tests confirmed 2 more cases in Hamburg: 2 elderly women (aged 68 and 88). This is not a renewed outbreak of the strain which circulated last year [2011] (O104:H4). It is another strain: O157 according to *Arzte Zeitung*, probably *E. coli* O157:H7. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website:
<http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmh.maryland.gov/flusurvey>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Zachary Faigen, MSPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: ZFaigen@dhmh.state.md.us

Anikah H. Salim, MPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: ASalim@dhmh.state.md.us

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	<p>ACUTE condition that may represent exposure to botulinum toxin</p> <p>ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy.</p> <p>ACUTE descending motor paralysis (including muscles of respiration)</p> <p>ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.</p>	Botulism
Hemorrhagic Illness	<p>SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola</p> <p>ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF</p> <p>ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria</p>	VHF
Lymphadenitis	<p>ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)</p>	Plague (Bubonic)
Localized Cutaneous Lesion	<p>SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia</p> <p>ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia</p> <p>INCLUDES insect bites</p> <p>EXCLUDES any lesion disseminated over the body or generalized rash</p> <p>EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease</p>	Anthrax (cutaneous) Tularemia
Gastrointestinal	<p>ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract</p> <p>SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis</p> <p>ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea</p> <p>EXCLUDES any chronic conditions such as inflammatory bowel syndrome</p>	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	<p>ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media)</p> <p>SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus</p> <p>ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis</p> <p>ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain</p> <p>EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE <i>acute exacerbation</i> of chronic illnesses.)</p>	<p>Anthrax (inhalational)</p> <p>Tularemia</p> <p>Plague (pneumonic)</p>
Neurological	<p>ACUTE neurological infection of the central nervous system (CNS)</p> <p>SPECIFIC diagnosis of acute CNS infection such as pneumococcal meningitis, viral encephalitis</p> <p>ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephalitis NOS, encephalopathy NOS</p> <p>ACUTE non-specific symptoms of CNS infection such as meningismus, delirium</p> <p>EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's</p>	Not applicable
Rash	<p>ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs)</p> <p>SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox</p> <p>ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem</p> <p>EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheic dermatitis, rosacea</p> <p>EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema</p>	Smallpox
Specific Infection	<p>ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal)</p> <p>INCLUDES septicemia from known bacteria</p> <p>INCLUDES other febrile illnesses such as scarlet fever</p>	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Fever	<p>ACUTE potentially febrile illness of origin not specified</p> <p>INCLUDES fever and septicemia not otherwise specified</p> <p>INCLUDES unspecified viral illness even though unknown if fever is present</p> <p>EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome</p>	Not applicable
Severe Illness or Death potentially due to infectious disease	<p>ACUTE onset of shock or coma from potentially infectious causes</p> <p>EXCLUDES shock from trauma</p> <p>INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births</p> <p>EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths</p>	Not applicable